Amendments to the Specification:

Please replace paragraph [0004] with the following amended paragraph:

Nanopowders in particular and sub-micron powders in general are a novel family of materials whose distinguishing feature is that their domain size is so small that size confinement effects become a significant determinant of the materials' performance. Such confinement effects can, therefore, lead to a wide range of commercially important properties. Nanopowders, therefore, are an extraordinary opportunity for design, development and commercialization of a wide range of devices and products for various applications. Furthermore, since they represent a whole new family of material precursors where conventional coarse-grain physiochemical mechanisms are not applicable; these materials offer unique combinations of properties that can enable novel and multifunctional components of unmatched performance. Yadav et al. in U.S. Patent No. 6,344,271 and in co-pending and commonly assigned U.S. Patent Application Nos. 09/638,977 now U.S. Patent No. 6,569,397, 10/004,387 now U.S. Patent No. 6,652,967, 10/071,027 now U.S. Patent No. 6,719,821, 10/113,315 now U.S. Patent No. 6,832,735, and 10/292,263 now U.S. Publication No. 2003-0132420 A1, which along with the references contained therein are all hereby incorporated by reference in their entirety, teach some applications of sub-micron and nanoscale powders.

Please replace paragraph [0053] with the following amended paragraph:

In certain embodiments, the precursors are environmentally benign, safe, readily available, high-metal loading, lower cost fluid materials. Examples of rare earth metal-containing precursors include, but are not limited to, metal acetates, metal carboxylates, metal carbonates, metal ethanoates, metal alkoxides, metal octoates, metal chelates, metallo-organic compounds, metal halides, metal azides, metal nitrates, metal sulfates, metal hydroxides, metal salts soluble in organics or water, and metal-containing emulsions. Teachings in commonly owned U.S. Patent Application No. 10/071,027 now U.S. Patent No. 6,719,821, which is hereby incorporated by reference in its entirety, may be useful for practicing the present invention.

Please replace paragraph [0058] with the following amended paragraph:

The precursor 100 may also be pre-processed in a number of other ways before the thermal treatment. For example, the pH is adjusted in certain embodiments to promote precursor stability. Alternatively, selective solution chemistry such as precipitation, is employed in certain embodiments to form a sol or other state of matter. The precursor 100 may be pre-heated or partially or fully combusted before the thermal treatment. The precursor 100 and solvent(s) 102, e.g., may form a blended precursor 104.

Please replace paragraph [0070] with the following amended paragraph:

It should be noted that intermediates or products at any stage may be used directly as feed precursors to produce nanoscale or fine powders by methods, such as, but not limited to, those taught in commonly owned U.S. Patent Nos. 5,788,738, 5,851,507, and 5,984,997, and co-pending U.S. Patent Application Nos. 09/638,977 now U.S. Patent No. 6,569,397 and 60/310,967, which are all incorporated herein by reference in their entirety. For example, a sol may be blended with a fuel and then utilized as the feed precursor mixture for thermal processing above 2500 K to produce nanoscale simple or complex powders.

Please replace paragraph [0074] with the following amended paragraph:

The powders produced by the teachings herein may be modified by post-processing by any method, such as those taught by commonly owned U.S. Patent Application No. 10/113,315 now U.S. Patent No. 6,832,735, which is hereby incorporated by reference in its entirety.

Please replace paragraph [0075] with the following amended paragraph:

The powders produced by teachings herein may be dispersed on the surface of other powders or bonded into core-shell type nanocomposite powders by any method. For illustration, U.S. Patent Application No. 10/004,387 now U.S. Patent No. 6,652,967, which is hereby incorporated by reference in its entirety, teaches such methods. Other methods may additionally be employed to coat color nanopigments in order to enhance processability, thermal stability,

chemical stability, and/or color performance. Non-limiting illustrations of such coatings include, but are not limited to, silica, alumina, ceria, zinc oxide, titanium oxide, and zirconium oxide.